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SHARP 21LF-45EC SERVICE MANUAL

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SHARP®

SERVICE MANUAL

SE0021LF45C00
Issued: 5th Oct. 2005

AK-44 CHASSIS

PAL B/G / SECAM L/L', B/G, D/K SYSTEM COLOUR TELEVISION

MODEL 21LF-45EC

In the interests of user safety (required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

In order to service the model 21LF-45EC, refer to the AK-44 Chassis Service Manual (SE00AK44CHA00).

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SHARP CORPORATION

This document has been published to be used for after sales service only.

SERVICE MANUAL UPDATE LOG SHEET

Technical Report No. Technical Bulletin No.	Cause / Solution	Part No.	Page No.	Application Data /Serial No.

Use this page to keep any special servicing information as Technical Report (Bulletin), Technical Information, etc.
If only part number changes are required, just change part number directly the part number in the Parts Listing Section.
If you need more information, please refer to the Technical Report (Bulletin).

ELECTRICAL SPECIFICATIONS

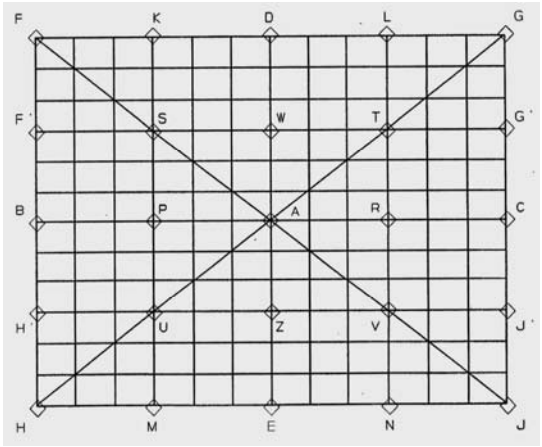
•Power Input ..... 220V-240 Volts AC 50 Hz

•Power Consumption
Normal Operation (Method IEC60107) ..... 58.5 W
Stand-by Operation ..... < 3 W

•Audio Power Output Rating (MPO) / Impedance
Internal Speaker ..... 4 W, 16 Ω

•Speakers
Speaker elliptic (1 pc) ..... 50 x 120 mm

•Convergence (Maximum Misconvergence)



AREA	mm
A	0.3
BC	1.0
DE	1.0
FGHJ	1.3
KLMN	1.2
F'G'H'J'	1.2
STUV	1.1

•Picture Intermediate frequency
L' 33.9MHz
L, B/G, D/K 38.9MHz

•Sound Carrier Trap
L' 40.4MHz
L, D/K 32.4MHz
B/G 33.4MHz

•Adjacent Sound Carrier Trap
L' 32.4MHz
L, D/K, B/G 40.4MHz

•Adjacent Picture Carrier Trap
L' 41.9MHz
L, D/K 30.9MHz
B/G 31.9MHz

•Aerial Input Impedance
VHF/UHF ..... 75 ohm Unbalanced

•Tuning Ranges ..... 48.25MHz thru 855.25 MHz
VHF: S1 - S41 CH (Hyperband)
E2 - E12 / F2 - F10
UHF: E21 - E69

•White Level
Apply the rated voltage at the rated frequency to the TV set, while it is receiving full white pattern RF signal of 60 dB/μV from its RF input via the pattern generator.
Turn all picture controls to maximum value. Measure the colour temperatures at the center of the screen by using the colour analyzer.

X=0.304 ± 0.015 Y=0.306 ± 0.015

Specifications are subject to change without prior notice.

MODEL DESTINATION (Operation Manual Languages)

21LF-45EC: Czech, English, Hungarian, Polish, Romanian, Russian, Slovakian

WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis.
To prevent electric shock, do not remove cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.

IMPORTANT SERVICING NOTES

Only qualified service personnel are allowed to carry out maintenance and repair of this receiver.

Servicing of High Voltage System and CRT

It is important that the static charge is removed from the high voltage system when carrying out work on the receiver. This can be achieved by connecting a 10K resistor (with a suitably insulated lead) from the CRT cavity connector to the CRT ground tag. This must be carried out with the AC supply disconnected from the receiver.

Note the following:

- The CRT in this receiver employs Integral Implosion Protection.
- If the CRT has to be changed it MUST be replaced with the correct type for continued safe working.
- DO NOT lift the CRT by its neck.
- When handing the CRT, ensure that shatterproof goggles are worn.
- Ensure that the CRT is discharge before handling.

X-Ray

This receiver is designed to keep any x-ray emission to an absolute minimum. Some fault conditions and servicing procedures may produce potentially hazardous x-ray radiation levels. This is a problem when in close proximity to the receiver for long periods of time. To reduce any risks associated with this, please observe the following precautions:

1. When undertaking any servicing on this chassis, DO NOT increase the EHT to more than 30.0 KV, (at a instantaneous beam current of 1300 μA).

2. Ensure that during normal operation the EHT does not exceed 25.55 KV (at a beam current of 1000 μA). This level has been preset in the factory. Always check that this level has not been exceeded after carrying out any repair on the receiver.

3. DO NOT replace the CRT with any other type than that specified in the parts listing as this may cause excessive x-ray radiation.

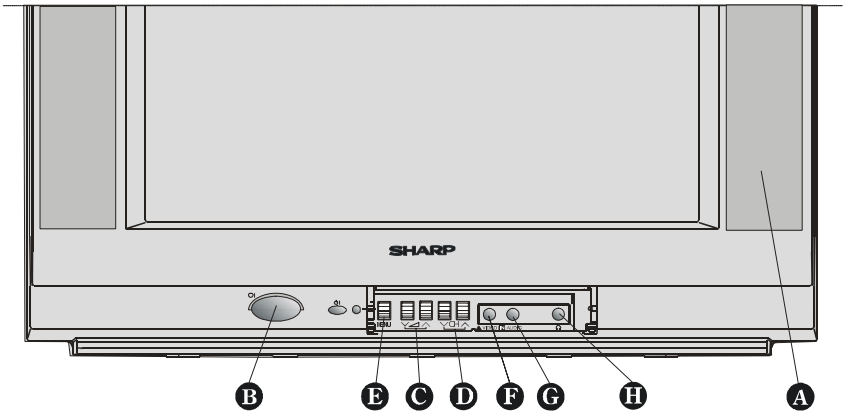
Before returning the receiver to the customer

In addition to the above checks, the following should also be carried out before returning the receiver to the customer.

1. Inspect all the leads to ensure that they are dressed correctly and that they are not obstructed or pinched by any other parts.

2. Ensure that all protective devices are in good condition. These will include nonmetallic control knobs, insulating fish papers, cabinets backs, compartment covers or shields, mechanical insulators, etc.

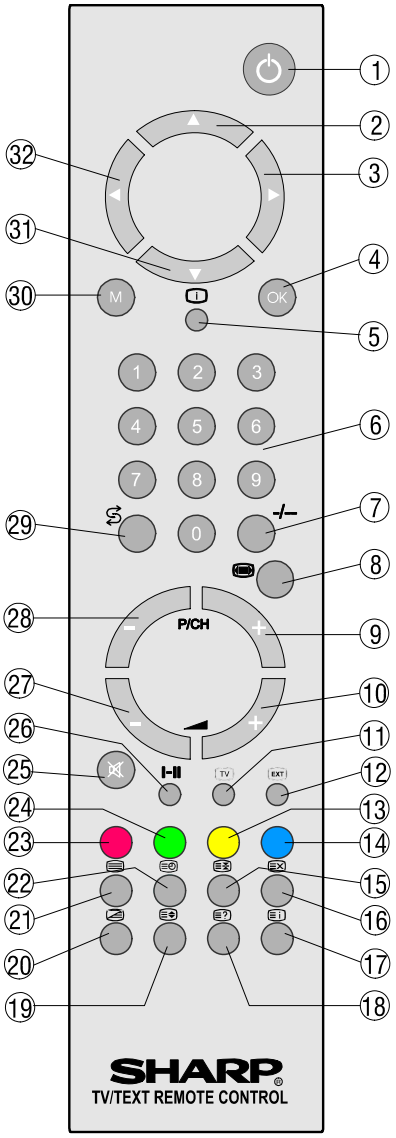
CONTROLS & TERMINALS



Ⓐ Speaker
Ⓑ ⏻ = Power On / Off
Ⓒ ∨ ◿ ∧ = Volume -/+
Ⓓ ∨ **CH** ∧ = Program -/+
Ⓔ **MENU** = Menu
Ⓕ **VIDEO** = Video input
Ⓖ **AUDIO** = Audio input
Ⓗ 🎧 = Headphone 3,6 mm Ø

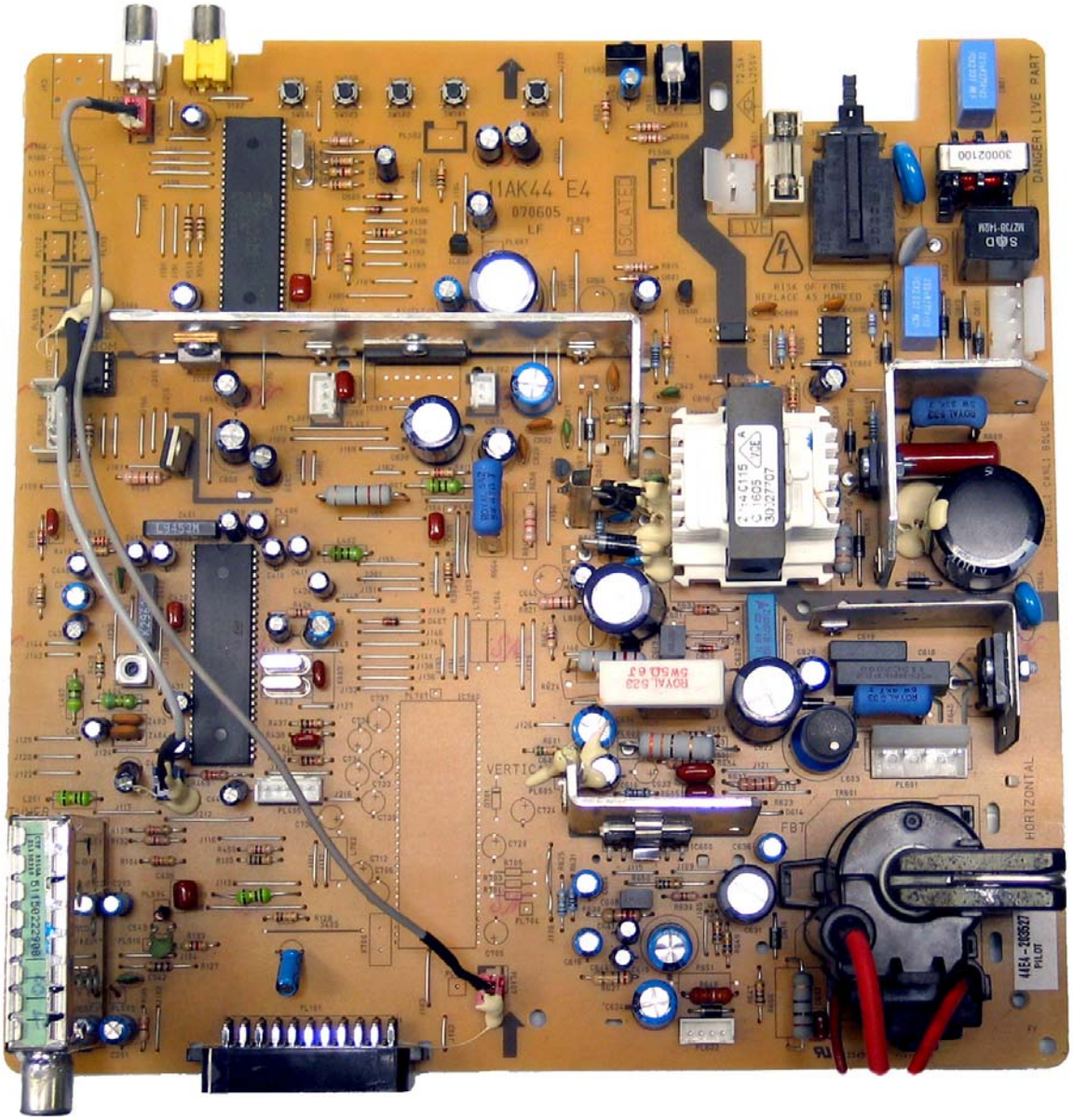
REMOTE CONTROL

① ⏻ = Stand By
② △ = Cursor Up
③ ▷ = Cursor Right
④ OK = OK
⑤ ⓘ = Info (Program Menu)
⑥ **0 - 9** = Direct Program
⑦ **-/--** = Double Digit
⑧ = Wide mode button
⑨ **P/CH+** = Program +
⑩ ◢ **+** = Volume +
⑪ TV = TV / Quit Menu
⑫ EXT = EXT button (**SCART, F- AV, RGB**)
⑬ **Yellow** = Feature Menu
⑭ **Blue** = Installation Menu
⑮ = Hold
⑯ = Update
⑰ = Index Page
⑱ = Reveal
⑲ = Expand
⑳ = Mix
㉑ = Teletext
㉒ = Time
㉓ **Red** = Sound Menu
㉔ **Green** = Picture Menu
㉕ 🔇 = Mute
㉖ **I-II** =No function
㉗ **-** ◢ = - Volume
㉘ **- P/CH** = -Program
㉙ ⮌ = Flash back button
㉚ **M** = Menu
㉛ ▽ = Cursor Down
㉜ ◁ = Cursor Left

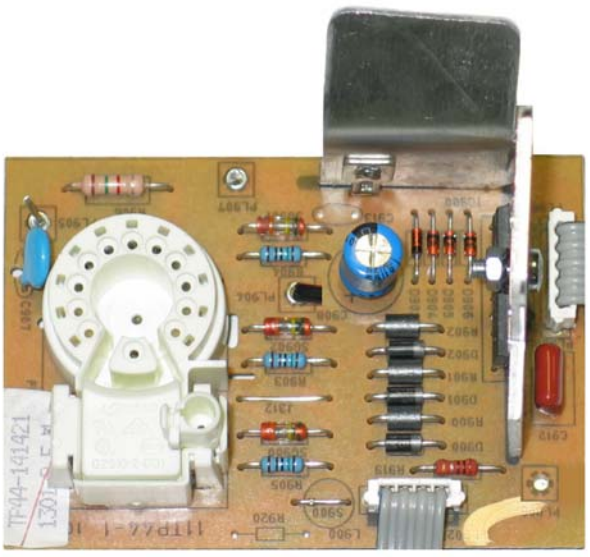


CHASSIS LAYOUT

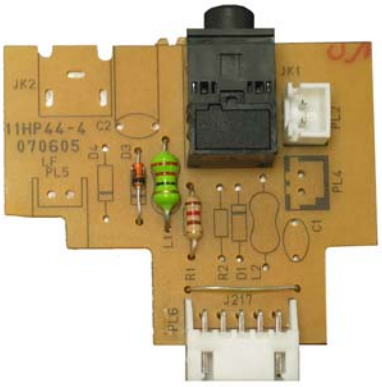
Mother Unit



CRT Unit



Headphone Unit



PARTS LISTING

REPLACEMENT PARTS

Replacement parts which have special safety characteristics are identified in this manual. Electrical components having such features are identified by ⚠ in the Replacement Parts Listing.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended is not permitted.
Replacement parts not shown in this service manual may create shock fire, or other hazards.

HOW TO ORDER REPLACEMENT PARTS

To have your order completed promptly and correctly please supply the following information.

1. MODEL NUMBER 2. REF. NO. 3. PART NO. (*)
4. DESCRIPTION 5. CODE 6. QUANTITY

(*) When ordering any part, a "V" should be added before the Part No.

	REF No.	(*) PARTS	DESCRIPTION	SN CODE	EX CODE
			PICTURE TUBE		
⚠		30017634	21" CRT TUBE SAFE EW FREE REALFLAT	BW	CQ
⚠		30028644	21DEGCOIL&EARTH SAFE CB.WO/UL FLAT SHARP	AG	AR
			TUNER		
	TU201	30009637	TUNER WSP (PLL) CTF5510A	AR	BC
			INTEGRATED CIRCUITS		
	IC101	30018063	IC HT48RA0A OTP RoHS	AF	AR
	IC118	30001506	IC TL431	AC	AH
	IC401	30013986	IC AAMP TDA7266L 5W SIP10 ROHS	AD	AM
	IC403	30026922	IC STV2248H (SHRINK56) ROHS	AR	BC
	IC501	20170086	PR.IC.36/44-SHARP 36_44_B31	AS	BD
	IC502	20203915	IC 24C08 U01825010310121202	AA	AE
	IC502	30001669	PREAMPLIFIER TFMS1380 RoHS	AD	AM
	IC600	30031272	IC TDA8174AW RoHS	AD	AM
	IC800	30031180	IC SMPS MC44608 DIP8 RoHS	AC	AK
⚠	IC801	30031282	IC SAFE OPTOCOUPLER TCET1102G RoHS	AA	AC
	IC803	30031119	IC LM7808. RoHS	AA	AE
	IC804	30031010	IC 7805 (1A) RoHS	AA	AE
	IC806	30014346	IC 78L05 TO-92 (100mA).	AA	AE
	IC900	30025172	IC TDA6107JF/N3 ROHS	AF	AQ
			TRANSISTORS		
	Q100	30001453	TR BC337 ROHS	AA	AC
	Q101	30001457	TR BC848B SMD	AA	AC
	Q103	30001457	TR BC848B SMD	AA	AC
	Q104	30001457	TR BC848B SMD	AA	AC
	Q105	30001457	TR BC848B SMD	AA	AC
	Q301	30001458	TR BC858B SMD	AA	AB
	Q302	30001457	TR BC848B SMD	AA	AC
	Q401	30001457	TR BC848B SMD	AA	AC
	Q402	30001457	TR BC848B SMD	AA	AC
	Q405	30001457	TR BC848B SMD	AA	AC
	Q406	30001457	TR BC848B SMD	AA	AC
	Q503	30001457	TR BC848B SMD	AA	AC
	Q504	30001458	TR BC858B SMD	AA	AB
	Q505	30001457	TR BC848B SMD	AA	AC
	Q601	30013656	TR POWER STX112-AP ROHS	AA	AE
	Q603	30001448	TR BU808DFI ROHS	AF	AQ
	Q604	30001457	TR BC848B SMD	AA	AC
	Q606	30001457	TR BC848B SMD	AA	AC
	Q607	30001458	TR BC858B SMD	AA	AB
	Q801	30031117	TR MTP6N60E (PLASTİK) RoHS	AC	AH
	Q802	30001457	TR BC848B SMD	AA	AC
	Q804	30001454	TR BC548B ROHS	AA	AC
			DIODES		
	D100	30002733	LED INFRARED IR333	AA	AC
	D1003	30003722	DIODE ZENER ZPD15V ROHS	AA	AA
	D101	30025773	DIODE ZENER SMD BZT55B5V1 ROHS	AA	AA
	D102	30025773	DIODE ZENER SMD BZT55B5V1 ROHS	AA	AA
	D103	30025773	DIODE ZENER SMD BZT55B5V1 ROHS	AA	AA
	D104	30038476	DIODE ZENER BZT55C12V SMD SOD123 ROHS	AA	AA
	D105	30025773	DIODE ZENER SMD BZT55B5V1 ROHS	AA	AA
	D106	30001377	DIODE ZENER 33V UZT 33B ROHS	AB	AF
	D107	30025773	DIODE ZENER SMD BZT55B5V1 ROHS	AA	AA
	D108	30038480	DIODE ZENER BZT55C5V6 SMD SOD123 ROHS	AA	AA
	D109	30038480	DIODE ZENER BZT55C5V6 SMD SOD123 ROHS	AA	AA
	D110	30038476	DIODE ZENER BZT55C12V SMD SOD123 ROHS	AA	AA
	D111	30038476	DIODE ZENER BZT55C12V SMD SOD123 ROHS	AA	AA
	D112	30038480	DIODE ZENER BZT55C5V6 SMD SOD123 ROHS	AA	AA

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	D300	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D301	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D401	30039051	DIODE BA682 ROHS	AA	AB
	D402	30039051	DIODE BA682 ROHS	AA	AB
	D405	30038472	DIODE ZENER SMD BZT55C5V1 SOD123 ROHS	AA	AA
	D407	30001284	DIODE 1N4148 0.15A/100V 0.5A ROHS	AA	AB
	D408	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D409	30030809	DIODE ZENER SMD BZT55B10V ROHS	AA	AA
	D410	30030809	DIODE ZENER SMD BZT55B10V ROHS	AA	AA
	D411	30030809	DIODE ZENER SMD BZT55B10V ROHS	AA	AA
	D501	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D505	30001284	DIODE 1N4148 0.15A/100V 0.5A ROHS	AA	AB
	D506	30001284	DIODE 1N4148 0.15A/100V 0.5A ROHS	AA	AB
	D512	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D513	30007761	DIODE ZENER SMD BZT55C3V6 ROHS	AA	AB
	D602	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D603	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D608	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D609	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D610	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D611	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D614	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D615	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D616	30038476	DIODE ZENER BZT55C12V SMD SOD123 ROHS	AA	AA
	D617	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D618	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D619	30038476	DIODE ZENER BZT55C12V SMD SOD123 ROHS	AA	AA
	D620	30001349	DIODE ZENER 11V	AA	AB
	D621	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D622	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D623	30001285	DIODE 1N4148 SMD ROHS	AA	AB
	D800	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D801	30001347	DIODE ZENER 8.2V. ROHS	AA	AB
	D802	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D803	30001315	DIODE BYD33D 1A/200V 20A ROHS	AA	AE
	D804	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D805	30031176	DIODE UF5402 3A/200V 150A RoHS	AA	AD
	D806	30001315	DIODE BYD33D 1A/200V 20A ROHS	AA	AE
	D808	30007681	DIODE UF5407 3A/800V 150A	AB	AF
	D809	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D810	30031176	DIODE UF5402 3A/200V 150A RoHS	AA	AD
	D811	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D813	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D837	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D838	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D889	30001384	TR MCR22-6 ROHS	AB	AG
	D890	30001329	DIODE 1N4007 1A/1000V 30A ROHS	AA	AB
	D891	30012985	JUMPER WIRE	AA	AB
	D893	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D894	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D900	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D901	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D902	30001318	DIODE BA159 1A/800V 20A ROHS	AA	AB
	D903	30001344	DIODE ZENER 6.2V 1/2W ROHS	AA	AB
	D904	30001349	DIODE ZENER 11V	AA	AB
	D905	30001349	DIODE ZENER 11V	AA	AB
	D906	30001349	DIODE ZENER 11V	AA	AB
			PACKAGED CIRCUITS		
	X100	30002852	XTAL REZ 455KHZ ROHS	AA	AD
	X401	30001749	XTAL 4.433619 Series HC49U ROHS	AC	AK
	X402	30015592	XTAL 3.579545 (WO/LOAD CAP) ROHS	AB	AG
	X403	30000074	CAP MKT 100NF 63V J	AA	AC
	X501	30002851	XTAL 4.000 30p HC49U ROHS	AC	AH
			COILS		
	L1001	30001996	FIXED COIL 22UH Q40 K ROHS	AA	AB
	L101	30013412	FERRITE SMD 1.5K/100MHz 500 mA(0805)ROHS	AA	AA
	L110	30013412	FERRITE SMD 1.5K/100MHz 500 mA(0805)ROHS	AA	AA
	L111	30013412	FERRITE SMD 1.5K/100MHz 500 mA(0805)ROHS	AA	AA
	L112	30013412	FERRITE SMD 1.5K/100MHz 500 mA(0805)ROHS	AA	AA
	L113	30013412	FERRITE SMD 1.5K/100MHz 500 mA(0805)ROHS	AA	AA
	L114	30013412	FERRITE SMD 1.5K/100MHz 500 mA(0805)ROHS	AA	AA
	L117	30001734	JUMPER SMD (0805) ROHS	AA	AB
	L201	30001979	FIXED COIL 1UH Q45 M-A ROHS	AA	AB
	L210	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L211	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L401	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L402	30001992	FIXED COIL 10UH Q65 K-A ROHS	AA	AB
	L403	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	L404	30001990	FIXED COIL 6.8UH Q75 K ROHS	AA	AB
	L405	30026042	ADJ.COIL VIF 44MHZ Q=64 C=39pF (RoHS)	AA	AD
	L406	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L407	30002002	FIXED COIL 47UH Q60 K ROHS	AA	AB
	L603	30018501	LINEARITY COIL 100UH	AB	AG
	L802	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L803	30000607	RES CF 1/4W 2.2R J. ROHS	AA	AB
	L805	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L806	30001971	FERRITE SMD 600R/100MHz 200mA (805) ROHS	AA	AD
	L807	30001992	FIXED COIL 10UH Q65 K-A ROHS	AA	AB
	L808		JUMPER WIRE	AA	AB
	L809	30001734	JUMPER SMD (0805) ROHS	AA	AB
	L811	30001734	JUMPER SMD (0805) ROHS	AA	AB
			CERAMIC FILTERS		
	Z401	30001707	FILTER SAW L9453M ROHS	AH	AU
	Z402	30001690	FILTER SAW K2962M ROHS	AH	AU
	Z403	30001728	TRIPLE TRAP TPT02B ROHS	AG	AT
	Z404	30001724	FILTER SER TRAP TPS 5.5MHZ ROHS	AB	AF
			TRANSFORMERS		
⚠	TR601	30031358	TRF FBT SAFE 90°(AK30,36 LAYER TYPE)RoHS	AP	BA
⚠	TR801	30031103	LINE FILTER SAFE 2*27MH RoHS	AA	AE
⚠	TR802	30038549	TRF SMPS SAFE AK44 RF 170-270V A=14VROHS	AE	AN
			CAPACITORS		
	C100	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C101	30016126	CAP SMD 220NF 16V K R (0603) ROHS	AA	AB
	C101	30012560	CAP SMD 100PF 50V J (0603) ROHS	AA	AB
	C102	30012560	CAP SMD 100PF 50V J (0603) ROHS	AA	AB
	C103	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C104	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C108	30000371	CAP EL 22UF 50V M ROHS	AA	AB
	C114	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C143	30012583	CAP SMD 1.5NF 50V K (0603) ROHS	AA	AA
	C144	30012583	CAP SMD 1.5NF 50V K (0603) ROHS	AA	AA
	C157	30012560	CAP SMD 100PF 50V J (0603) ROHS	AA	AB
	C201	30000400	CAP EL 47UF 50V M ROHS	AA	AB
	C202	30012985	JUMPER SMD 0603 ROHS	AA	AB
	C205	30000371	CAP EL 22UF 50V M ROHS	AA	AB
	C206	30012610	CAP SMD 10NF 50V J (0603) ROHS	AA	AB
	C207	30012610	CAP SMD 10NF 50V J (0603) ROHS	AA	AB
	C300	30000400	CAP EL 47UF 50V M ROHS	AA	AB
	C302	30000092	CAP MKT 220NF 63V J ROHS	AA	AD
	C404	30000225	CAP CER 220PF 50V J SL ROHS	AA	AB
	C408	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C409	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C410	30000384	CAP EL 2.2UF 50V M ROHS	AA	AB
	C411	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C412	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C413	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
	C414	30012585	CAP SMD 2.2NF 50V K R (0603) ROHS	AA	AB
	C415	30012581	CAP SMD 1NF 50V K R (0603) ROHS	AA	AB
	C416	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
	C417	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
	C418	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C419	30000413	CAP EL 4.7UF 50V M ROHS	AA	AB
	C420	30000100	CAP MKT 330NF 63V J ROHS	AA	AD
	C422	30000400	CAP EL 47UF 50V M ROHS	AA	AB
	C423	30000400	CAP EL 47UF 50V M ROHS	AA	AB
	C424	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C425	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C426	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C427	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C429	30012589	CAP SMD 4.7NF 50V K (0603) ROHS	AA	AB
	C431	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
	C432	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C433	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C434	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C435	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C436	30000109	CAP MKT 470NF 63V J ROHS	AA	AD
	C437	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C438	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C439	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C440	30000074	CAP MKT 100NF 63V J	AA	AC
	C442	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
	C443	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
	C444	30000384	CAP EL 2.2UF 50V M ROHS	AA	AB
	C446	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C448	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	C449	30012567	CAP SMD 220PF 50V J (0603) ROHS	AA	AB
	C452	30012583	CAP SMD 1.5NF 50V K (0603) ROHS	AA	AA
	C453	30012581	CAP SMD 1NF 50V K R (0603) ROHS	AA	AB
	C454	30012573	CAP SMD 47PF 50V J (0603) ROHS	AA	AB
	C455	30012573	CAP SMD 47PF 50V J (0603) ROHS	AA	AB
	C456	30012573	CAP SMD 47PF 50V J (0603) ROHS	AA	AB
	C457	30012567	CAP SMD 220PF 50V J (0603) ROHS	AA	AB
	C459	30012575	CAP SMD 4.7PF 50V C CH (0603) ROHS	AA	AA
	C460	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C502	30000396	CAP EL 47UF 16V M ROHS	AA	AB
	C504	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C505	30012589	CAP SMD 4.7NF 50V K (0603) ROHS	AA	AB
	C510	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C511	30012566	CAP SMD 22PF 50V J (0603) ROHS	AA	AB
	C513	30000371	CAP EL 22UF 50V M ROHS	AA	AB
	C514	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C515	30012579	CAP SMD 82PF 50V J (0603) ROHS	AA	AB
	C517	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C518	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C519	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C520	30012560	CAP SMD 100PF 50V J (0603) ROHS	AA	AB
	C521	30012562	CAP SMD 15PF 50V J (0603) ROHS	AA	AA
	C522	30012562	CAP SMD 15PF 50V J (0603) ROHS	AA	AA
	C523	30012585	CAP SMD 2.2NF 50V K R (0603) ROHS	AA	AB
	C524	30012985	JUMPER SMD 0603 ROHS	AA	AB
	C525	30012566	CAP SMD 22PF 50V J (0603) ROHS	AA	AB
	C530	30012589	CAP SMD 4.7NF 50V K (0603) ROHS	AA	AB
	C531	30000384	CAP EL 2.2UF 50V M ROHS	AA	AB
	C532	30012586	CAP SMD 22NF 50V K (0603) ROHS	AA	AB
	C536	30000074	CAP MKT 100NF 63V J	AA	AC
	C541	30000109	CAP MKT 470NF 63V J ROHS	AA	AD
	C542	30000205	CAP CER 150PF 50V J SL ROHS	AA	AB
	C543	30000205	CAP CER 150PF 50V J SL ROHS	AA	AB
	C545	30012607	CAP SMD 150PF 50V J (0603) ROHS	AA	AA
	C546	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C548	30012603	CAP SMD 100NF 25V K R (0603) ROHS	AA	AB
	C603	30000384	CAP EL 2.2UF 50V M ROHS	AA	AB
	C604	30000400	CAP EL 47UF 50V M ROHS	AA	AB
	C608	30000107	CAP MKT 47NF 250V J	AA	AD
	C610	30018901	CAP EL 100UF 50V M 105° ROHS	AA	AB
	C611	30000092	CAP MKT 220NF 63V J ROHS	AA	AD
	C613	30000078	CAP MKT 1UF 100V M ROHS	AB	AF
	C615	30000359	CAP EL 1000UF 16V M ROHS	AA	AC
	C616	30000400	CAP EL 47UF 50V M ROHS	AA	AB
⚠	C618	30000134	CAP MKP SAFE 11NF 2000Vdc / 1700Vpp%3.5R	AC	AH
	C619	30000131	CAP MKP SAFE 100NF 250V J	AA	AB
	C623	30029182	CAP EL 100UF 250V M W LONG LEAD RoHS	AB	AF
	C624	30000350	CAP EL 10UF 250V M. ROHS	AA	AD
⚠	C627	30006750	CAP MKP 220NF 400V J ROHS	AA	AD
	C628	30018380	CAP EL 3.3UF 160V M 105° ROHS	AA	AB
	C631	30000410	CAP EL 470UF 50V M. ROHS	AB	AF
	C632	30000100	CAP MKT 330NF 63V J ROHS	AA	AD
	C634	30000409	CAP EL 470UF 25V ROHS	AA	AD
	C635	30000100	CAP MKT 330NF 63V J ROHS	AA	AD
	C636	30000400	CAP EL 47UF 50V M ROHS	AA	AB
	C638	30012581	CAP SMD 1NF 50V K R (0603) ROHS	AA	AB
	C641	30000345	CAP EL 10UF 50V M ROHS	AA	AB
	C642	30012609	CAP SMD 68NF 50V K (0603) ROHS	AA	AB
	C643	30000116	CAP MKT 68NF 63V J ROHS	AA	AC
	C644	30000362	CAP EL 1UF 50V M. ROHS	AA	AB
⚠	C801	30000094	CAP MKT SAFE 220NF 275V M AC	AA	AB
⚠	C802	30000094	CAP MKT SAFE 220NF 275V M AC	AA	AB
	C803	30000433	CAP CER 1NF 1KV M B ROHS	AA	AB
	C805	30018085	CAP VAR SAFE 510V K MFCN14D511 ROHS	AA	AD
	C806	30000433	CAP CER 1NF 1KV M B ROHS	AA	AB
	C808	30000295	CAP CER 100NF 50V Z F ROHS	AA	AB
	C809	30000420	CAP EL 150UF 400V M. ROHS	AF	AQ
	C810	30000387	CAP EL 33UF 50V M ROHS	AA	AB
⚠	C811	30000161	CAP MKP SAFE 47NF 630Vdc / 622Vpp J ROHS	AB	AE
	C813	30000295	CAP CER 100NF 50V Z F ROHS	AA	AB
⚠	C816	30000440	CAP CER SAFE 2.2NF 4KV M ROH	AA	AC
	C817	30000198	CAP CER 120PF 500V J SL ROHS	AA	AB
	C818	30016654	CAP SMD 100NF 16V K R (0603) ROHS	AA	AB
	C819	30012609	CAP SMD 68NF 50V K (0603) ROHS	AA	AB
	C822	30007308	CAP CER 220PF 1KV K (PULSE) ROHS	AA	AD
	C824	30009208	CAP CER 470PF 1KV K (PULSE) ROHS	AA	AC
	C826	30029182	CAP EL 100UF 250V M W LONG LEAD RoHS	AB	AF
	C827	30000411	CAP EL 4700UF 16V M ROHS	AC	AH
	C828	30000295	CAP CER 100NF 50V Z F ROHS	AA	AB
	C829	30000359	CAP EL 1000UF 16V M ROHS	AA	AC

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	C830	30000382	CAP EL 2200UF 16V M ROHS	AB	AF
	C832	30000295	CAP CER 100NF 50V Z F ROHS	AA	AB
	C833	30000407	CAP EL 470UF 16V M. ROHS	AA	AC
	C834	30000295	CAP CER 100NF 50V Z F ROHS	AA	AB
	C836	30000431	CAP CER 100PF 1KV M	AA	AC
	C838	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C839	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C840	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C843	30000431	CAP CER 100PF 1KV M	AA	AC
	C848	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C849	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C850	30000352	CAP EL 100UF 16V M ROHS	AA	AB
	C855	30000407	CAP EL 470UF 16V M. ROHS	AA	AC
	C857	30012573	CAP SMD 47PF 50V J (0603) ROHS	AA	AB
	C859	30013533	CAP CER 100PF 1KV K (PULSE) ROHS	AA	AC
	C862	30000367	CAP EL 1UF 250V M ROHS	AA	AB
⚠	C864	30000440	CAP CER SAFE 2.2NF 4KV M ROH	AA	AC
	C907	30000434	CAP CER 1NF 2KV K B ROHS	AA	AB
	C908	30000415	CAP EL 4.7UF 250V M ROHS	AA	AC
	C912	30000075	CAP MKT 100NF 250V K (DC) ROHS	AA	AD
			RESISTORS		
	R100	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R1001	30000492	RES CF 1/4W 120R J. ROHS	AA	AA
	R101	30012509	RES SMD 1/16W 100K J (0603) ROHS	AA	AB
	R101	30000489	RES SMD 1/10W 1R J (0805) ROHS	AA	AB
	R103	30012509	RES SMD 1/16W 100K J (0603) ROHS	AA	AB
	R104	30000594	RES CF 1/4W 22K J. ROHS	AA	AB
	R105	30000792	RES CF 1/4W 75R J ROHS	AA	AB
	R108	30000723	RES CF 1/4W 47K J ROHS	AA	AB
	R109	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R110	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R113	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R114	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R115	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R116	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R117	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R118	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R123	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R125	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R127	30000459	RES CF 1/4W 100R J. ROHS	AA	AB
	R128	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R129	30012713	RES SMD 1/16W 75R J (0603) ROHS	AA	AB
	R130	30000594	RES CF 1/4W 22K J. ROHS	AA	AB
	R132	30000723	RES CF 1/4W 47K J ROHS	AA	AB
	R133	30000718	RES CF 1/4W 4.7K J ROHS	AA	AB
	R153	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R201	30012674	RES SMD 1/16W 27K J (0603) ROHS	AA	AB
	R202	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R204	30000459	RES CF 1/4W 100R J. ROHS	AA	AB
	R206	30000459	RES CF 1/4W 100R J. ROHS	AA	AB
	R301	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R302	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R303	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R305	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R306	30012509	RES SMD 1/16W 100K J (0603) ROHS	AA	AB
	R404	30012696	RES SMD 1/16W 47K J (0603) ROHS	AA	AB
	R407	30000590	RES CF 1/4W 2.2K J. ROHS	AA	AB
	R410	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R412	30012696	RES SMD 1/16W 47K J (0603) ROHS	AA	AB
	R417	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R418	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R419	30012649	RES SMD 1/16W 150R J (0603) ROHS	AA	AB
	R420	30000466	RES CF 1/4W 1K J ROHS	AA	AB
	R421	30012650	RES SMD 1/16W 15K J (0603) ROHS	AA	AB
	R422	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R423	30012712	RES SMD 1/16W 8.2K J (0603) ROHS	AA	AB
	R424	30000712	RES CF 1/4W 470R J	AA	AB
	R425	30012668	RES SMD 1/16W 220R J (0603) ROHS	AA	AA
	R426	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R427	30012674	RES SMD 1/16W 27K J (0603) ROHS	AA	AB
	R428	30000792	RES CF 1/4W 75R J ROHS	AA	AB
	R431	30012674	RES SMD 1/16W 27K J (0603) ROHS	AA	AB
	R432	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R433	30012667	RES SMD 1/16W 220K J (0603) ROHS	AA	AB
	R437	30000466	RES CF 1/4W 1K J ROHS	AA	AB
	R438	30000466	RES CF 1/4W 1K J ROHS	AA	AB
	R439	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R440	30012714	RES SMD 1/16W 820R J (0603) ROHS	AA	AA
	R441	30012656	RES SMD 1/16W 18K J (0603) ROHS	AA	AB

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	R442	30000466	RES CF 1/4W 1K J ROHS	AA	AB
	R446	30012714	RES SMD 1/16W 820R J (0603) ROHS	AA	AA
	R447	30012714	RES SMD 1/16W 820R J (0603) ROHS	AA	AA
	R448	30012683	RES SMD 1/16W 330K J (0603) ROHS	AA	AB
	R449	30012662	RES SMD 1/16W 2.7K J (0603) ROHS	AA	AB
	R450	30000712	RES CF 1/4W 470R J	AA	AB
	R454	30012665	RES SMD 1/16W 20K J (0603) ROHS	AA	AB
	R455	30012665	RES SMD 1/16W 20K J (0603) ROHS	AA	AB
	R458	30012662	RES SMD 1/16W 2.7K J (0603) ROHS	AA	AB
	R459	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R460	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R461	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R465	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R466	30012705	RES SMD 1/16W 6.8K J (0603) ROHS	AA	AB
	R467	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R468	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R469	30000670	RES CF 1/4W 330K J. ROHS	AA	AB
	R470	30012683	RES SMD 1/16W 330K J (0603) ROHS	AA	AB
	R475	30012510	RES SMD 1/16W 100R J (0603) ROHS	AA	AB
	R476	30012707	RES SMD 1/16W 680R J (0603) ROHS	AA	AB
	R477	30014022	RES SMD 1/16W 47R J (0603) ROHS	AA	AA
	R502	30012695	RES SMD 1/16W 470R J (0603) ROHS	AA	AB
	R503	30012707	RES SMD 1/16W 680R J (0603) ROHS	AA	AB
	R504	30012679	RES SMD 1/16W 3.9K J (0603) ROHS	AA	AB
	R505	30012673	RES SMD 1/16W 270R J (0603) ROHS	AA	AB
	R506	30012506	RES SMD 1/16W 1.5K J (0603) ROHS	AA	AB
	R507	30000466	RES CF 1/4W 1K J ROHS	AA	AB
	R508	30000622	RES CF 1/4W 270R J	AA	AB
	R509	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R510	30000737	RES CF 1/4W 5.1K J ROHS	AA	AB
	R511	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R512	30012504	RES SMD 1/16W 1.2K J (0603) ROHS	AA	AB
	R513	30000459	RES CF 1/4W 100R J. ROHS	AA	AB
	R514	30000459	RES CF 1/4W 100R J. ROHS	AA	AB
	R515	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R516	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R517	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R518	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R519	30012698	RES SMD 1/16W 5.6K J (0603) ROHS	AA	AB
	R525	30000583	RES CF 1/4W 220R J ROHS	AA	AB
	R526	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R527	30000718	RES CF 1/4W 4.7K J ROHS	AA	AB
	R528	30012698	RES SMD 1/16W 5.6K J (0603) ROHS	AA	AB
	R530	30012698	RES SMD 1/16W 5.6K J (0603) ROHS	AA	AB
	R532	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R533	30012644	RES SMD 1/16W 12K J (0603) ROHS	AA	AB
	R534	30000526	RES CF 1/4W 1.5K J ROHS	AA	AB
	R535	30000718	RES CF 1/4W 4.7K J ROHS	AA	AB
	R536	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R537	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R545	30012644	RES SMD 1/16W 12K J (0603) ROHS	AA	AB
	R546	30000560	RES CF 1/4W 1.8K J ROHS	AA	AB
	R547	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R548	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R552	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R555	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R556	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R559	30000470	RES CF 1/2W 10K J ROHS	AA	AA
	R560	30012669	RES SMD 1/16W 22K J (0603) ROHS	AA	AB
	R561	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R562	30000471	RES CF 1/4W 10K J ROHS	AA	AB
	R564	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R565	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R601	30000752	RES CF 1/4W 56K J	AA	AB
	R602	30000820	RES CF 1/4W 82K J ROHS	AA	AB
	R605	30000504	RES CF 1/4W 120K J ROHS	AA	AB
	R612	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R613	30012692	RES SMD 1/16W 4.7K J (0603) ROHS	AA	AB
	R618	30012508	RES SMD 1/16W 1.8K J (0603) ROHS	AA	AB
	R619	30012705	RES SMD 1/16W 6.8K J (0603) ROHS	AA	AB
	R623	30000607	RES CF 1/4W 2.2R J. ROHS	AA	AB
	R624	30001120	RES MO 2W 22R J ROHS	AA	AB
	R625	30000900	RES MF 1/4W 1.8K J ROHS	AA	AB
	R627	30000642	RES CF 1/2W 2.7R J ROHS	AA	AB
	R628	30012985	JUMPER WIRE	AA	AB
	R630	30000828	RES CF 1/4W 8.2M J ROHS	AA	AB
	R631	30000885	RES MF 1/4W 1.5K J ROHS	AA	AB
	R633	30000650	RES CF 1/4W 33R J. ROHS	AA	AB
	R634	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R637	30000621	RES CF 1/2W 270R J ROHS	AA	AB

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	R638	30000589	RES CF 1/2W 2.2K J ROHS	AA	AA
	R639	30000718	RES CF 1/4W 4.7K J ROHS	AA	AB
	R640	30012662	RES SMD 1/16W 2.7K J (0603) ROHS	AA	AB
	R641	30012649	RES SMD 1/16W 150R J (0603) ROHS	AA	AB
	R645	30018904	RES MO 5W 4.7K J (RADIAL) RoHS	AA	AD
	R646	30014941	RES CF 1/4W 16K J ROHS	AA	AA
	R647	30000466	RES CF 1/4W 1K J ROHS	AA	AB
⚠	R648	30001216	RES FUSE SAFE 1W 1.2R J ROHS	AA	AA
	R649	30014941	RES CF 1/4W 16K J ROHS	AA	AA
	R650	30000744	RES CF 1/4W 560R J ROHS	AA	AB
	R654	30000458	RES CF 1/2W 100R J ROHS	AA	AB
	R655	30000705	RES CF 1/2W 47R J. ROHS	AA	AB
	R657	30012656	RES SMD 1/16W 18K J (0603) ROHS	AA	AB
	R659	30001151	RES MO 3W 330R J ROHS	AA	AD
	R660	30012669	RES SMD 1/16W 22K J (0603) ROHS	AA	AB
	R661	30012674	RES SMD 1/16W 27K J (0603) ROHS	AA	AB
	R662	30000712	RES CF 1/4W 470R J	AA	AB
	R663	30000459	RES CF 1/4W 100R J. ROHS	AA	AB
	R664	30007779	RES MO 5W 47R J(RADIAL) ROHS	AA	AC
	R665	30012708	RES SMD 1/16W 68K J (0603) ROHS	AA	AA
	R666	30001077	RES MO 2W 10R J ROHS	AA	AC
	R667	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R668	30012641	RES SMD 1/16W 10K J (0603) ROHS	AA	AB
	R669	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R801	30000982	RES MF 1/4W 4.7K J ROHS	AA	AA
	R803	30012659	RES SMD 1/16W 2.2K J (0603) ROHS	AA	AB
	R804	30000504	RES CF 1/4W 120K J ROHS	AA	AB
	R805	30000843	RES MF 1/4W 10R J ROHS	AA	AB
	R806	30000982	RES MF 1/4W 4.7K J ROHS	AA	AA
	R807	30001159	RES MO 1W 0.33R J ROHS	AA	AB
	R809	30007784	RES MO 5W 33K J(RADIAL) ROHS	AA	AD
⚠	R810	30001257	RES MG SAFE 1/2W 4.7M J ROHS	AA	AD
	R811	30000594	RES CF 1/4W 22K J. ROHS	AA	AB
	R813	30000718	RES CF 1/4W 4.7K J ROHS	AA	AB
	R814	30000588	RES SMD 1/10W 220R J 0805 ROHS	AA	AB
	R815	30000452	RES CF 1/4W 10R J. ROHS	AA	AB
	R817	30001037	RES MF 1/4W 99K F ROHS	AA	AB
	R818	30006463	RES MF 1/4W 2K F ROHS	AA	AA
	R819	30000809	RES CF 1/2W 820R J ROHS	AA	AA
	R821	30000470	RES CF 1/2W 10K J ROHS	AA	AA
	R828	30001265	NTC SAFE MONITOR 10R/3A SCK-103 RoHS	AA	AB
	R829	30000718	RES CF 1/4W 4.7K J ROHS	AA	AB
	R830	30012657	RES SMD 1/16W 1K J (0603) ROHS	AA	AB
	R831	30012669	RES SMD 1/16W 22K J (0603) ROHS	AA	AB
	R833	30012985	JUMPER SMD 0603 ROHS	AA	AB
	R835	30016802	RES WW 5W 5.6R J RAD ROHS	AA	AD
⚠	R836	30001224	RES FUSE SAFE 1/2W 0.22R J ROHS	AA	AB
	R838	30000631	RES SMD 1/10W 2.7K J 0805 ROHS	AA	AB
	R900	30006712	FERRITE BEAD 3.5X4.7X0.8 ROHS	AA	AB
	R901	30006712	FERRITE BEAD 3.5X4.7X0.8 ROHS	AA	AB
	R902	30006712	FERRITE BEAD 3.5X4.7X0.8 ROHS	AA	AB
	R903	30000885	RES MF 1/4W 1.5K J ROHS	AA	AB
	R904	30000885	RES MF 1/4W 1.5K J ROHS	AA	AB
	R905	30000885	RES MF 1/4W 1.5K J ROHS	AA	AB
	R906	30000525	RES CF 1/2W 1.5K J ROHS	AA	AB
	R919	30001212	RES FUSE SAFE 1/2W 1R J	AA	AA
			PRINTED WIRING BOARD MODULES		
		20219005	CHS.ASSY.44-522D315114231E(ROHS) (Mother Unit)	BF	BX
		20191840	CRT B.ASSY.TP44-RF/SF (AK44)(ROHS) (CRT Unit)	AM	AY
		20219001	MD.ASY.HP44-MONO (HP+FAV) (AK44)(ROHS) (Head. Unit)	AE	AP
			MISCELLANEOUS PARTS		
⚠		20140383	BACK CVR.2163RF EKO2GRAY (AK44)	AQ	BA
		20141198	BUTTON ASSY 2163 (SLV285S/P)	AC	AK
		35000013	SPRING ON/OFF SWITCH	AA	AB
		20141199	SCR.ASSY.2163 HP (2SP)gr	AC	AK
		35005084	SCREW C ZN RYAKB 6x30	AA	AB
		35008081	SCREW P C ZN YFMB 3*9.5	AA	AA
		35008812	SCREW P C ZN RYSB 3x10	AA	AB
		35009300	SCREW P C ZN FYSB 4X16 (D:11)	AA	AB
		35010702	SCREW P C ZN YSB SK 4x18.5 (BEYAZ)	AA	AA
		20141200	SNOW BOX ASSY 2163	AN	AZ
		20140387	SNOW BOX TOP 2163RF SHARP	AD	AL
		20140388	SNOW BOX BOTTOM 2163RF SHARP	AD	AL
		20085269	FR-HIPS NATR.V-0 SAFE	AA	AC
		35008844	DOOR METAL SPRING (41x22.5) SHARP	AA	AC
		35008850	METAL WASHER XX6XW (SHARP)	AA	AB
		40016859	RUBBER WASHER 2163RF (I) SHARP	AA	AB
		40016871	DOOR SPACER (M10)	AA	AB
		20146997	CONTROL PAN.DOOR 2163RF SHARP SLV285S(P)	AD	AM

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
		20152827	F CARTON BOX SHARP EL.SHARP (2163)		
		50064759	CARTON BOX SHARP SHARP (2163)(2)	AN	AY
⚠		30028208	POWER CORD SAFE EURO 2.2M SHARP W/F ROHS	AG	AT
		35000014	EARTH SPRING (2CM)	AA	AB
		30027134	SPEAKER 16R 4W F/R 50x120MM-21" SHARP	AF	AR
		20218937	FRONT2163AV2H W/H&J SL285S/P/PW/S/1S/M	AT	BE
		30027688	CNAS 2P/500 90° SPK DISW/C+FER AWG24RoHS	AB	AE
		35005418	SCREW P C ZN YSB 3.5x10 (KN1031 T35X10)	AA	AA
⚠	.	20069673	FIRE BARRIER (I)(NATURAL-V.0) (AK30)	AA	AC
		35008762	METAL INSERT XX62-64W (SHARP)	AA	AD
		35000136	FUSE HOLDER SAFE TK79-A (GRAY) ROHS	AA	AD
		50043776	LABEL LOT W/BARCODE (100X280) SHARP	AA	AC
		20013018	LBL.BCK.CVR.ASSY (TV) (WO/UL)	AA	AB
		50023173	LABEL LOT W/BARCODE (77X256)	AA	AC
		20143026	R/C 1548 SHARP (EKO2GRAY/I) (GRAY/S)	AM	AY
		20143008	R/C 1548 NOBRAND (EKO2GRAY(I) (F) SHARP	AM	AY
		35000001	SINGLE BATTERY CONTACT (-)	AA	AA
		35005006	SINGLE BATTERY CONTACT (+) TOSHIBA	AA	AA
		35005007	DOUBLE BATTERY CONTACT UKV-900 TOSHIBA	AA	AA
		40012331	RUBBER PAD (RC 1542)	AD	AL
		30002391	BATTERY AAA UM4 1.5V GREEN rohs	AA	AB
		50064728	I/B PAPER SHARP WEEE	AA	AA
		50073087	I/B SHARP 21LF-45E(C) AK44/1548/EPHÇSRR	AG	AS
		40016817	LOGO SHARP (D.C.-SILVER)21"RF	AC	AH
⚠	F801	30031038	FUSE SAFE 2.5A 250V 5*20MM RoHS	AA	AB
	J100		JUMPER WIRE	AA	AB
	J101		JUMPER WIRE	AA	AB
	J102		JUMPER WIRE	AA	AB
	J103		JUMPER WIRE	AA	AB
	J103		JUMPER WIRE	AA	AB
	J104		JUMPER WIRE	AA	AB
	J105		JUMPER WIRE	AA	AB
	J106		JUMPER WIRE	AA	AB
	J108		JUMPER WIRE	AA	AB
	J109		JUMPER WIRE	AA	AB
	J110	30001979	FIXED COIL 1UH Q45 M-A ROHS	AA	AB
	J111		JUMPER WIRE	AA	AB
	J112		JUMPER WIRE	AA	AB
	J113		JUMPER WIRE	AA	AB
	J115		JUMPER WIRE	AA	AB
	J116		JUMPER WIRE	AA	AB
	J117		JUMPER WIRE	AA	AB
	J118		JUMPER WIRE	AA	AB
	J119		JUMPER WIRE	AA	AB
	J120		JUMPER WIRE	AA	AB
	J121		JUMPER WIRE	AA	AB
	J122		JUMPER WIRE	AA	AB
	J123		JUMPER WIRE	AA	AB
	J124		JUMPER WIRE	AA	AB
	J125		JUMPER WIRE	AA	AB
	J126		JUMPER WIRE	AA	AB
	J127		JUMPER WIRE	AA	AB
	J128		JUMPER WIRE	AA	AB
	J129		JUMPER WIRE	AA	AB
	J130		JUMPER WIRE	AA	AB
	J130		JUMPER WIRE	AA	AB
	J132		JUMPER WIRE	AA	AB
	J133		JUMPER WIRE	AA	AB
	J134		JUMPER WIRE	AA	AB
	J135		JUMPER WIRE	AA	AB
	J136		JUMPER WIRE	AA	AB
	J137		JUMPER WIRE	AA	AB
	J138		JUMPER WIRE	AA	AB
	J139		JUMPER WIRE	AA	AB
	J140		JUMPER WIRE	AA	AB
	J141		JUMPER WIRE	AA	AB
	J142		JUMPER WIRE	AA	AB
	J143		JUMPER WIRE	AA	AB
	J144		JUMPER WIRE	AA	AB
	J145		JUMPER WIRE	AA	AB
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	J147		JUMPER WIRE	AA	AB
	J148		JUMPER WIRE	AA	AB
	J149		JUMPER WIRE	AA	AB
	J150		JUMPER WIRE	AA	AB
	J151		JUMPER WIRE	AA	AB
	J152		JUMPER WIRE	AA	AB
	J153		JUMPER WIRE	AA	AB
	J154		JUMPER WIRE	AA	AB

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	J155		JUMPER WIRE	AA	AB
	J156		JUMPER WIRE	AA	AB
	J157		JUMPER WIRE	AA	AB
	J158		JUMPER WIRE	AA	AB
	J159		JUMPER WIRE	AA	AB
	J160		JUMPER WIRE	AA	AB
	J161		JUMPER WIRE	AA	AB
	J162		JUMPER WIRE	AA	AB
	J163		JUMPER WIRE	AA	AB
	J164		JUMPER WIRE	AA	AB
	J165		JUMPER WIRE	AA	AB
	J166		JUMPER WIRE	AA	AB
	J167		JUMPER WIRE	AA	AB
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	J169		JUMPER WIRE	AA	AB
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	J202		JUMPER WIRE	AA	AB
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	J204		JUMPER WIRE	AA	AB
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	J206		JUMPER WIRE	AA	AB
	J207		JUMPER WIRE	AA	AB
	J208		JUMPER WIRE	AA	AB
	J209		JUMPER WIRE	AA	AB
	J210		JUMPER WIRE	AA	AB
	J211		JUMPER WIRE	AA	AB
	J212		JUMPER WIRE	AA	AB
	J213		JUMPER WIRE	AA	AB
	J214		JUMPER WIRE	AA	AB
	J215		JUMPER WIRE	AA	AB
	J216		JUMPER WIRE	AA	AB
	J300	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J301	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J302	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J303	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J304	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J305	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J306	30001734	JUMPER SMD (0805) ROHS	AA	AB
	J307	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J308	30012985	JUMPER SMD 0603 ROHS	AA	AB
	J312	35000176	JUMPER WIRE	AA	AB
	JK1	30027655	JACK RCA 1P WHITE SHARP (AK44) ROHS	AA	AC
	JK2	30027654	JACK RCA 1P YELLOW SHARP (AK44) ROHS	AA	AC
	NOT1	30009849	CABL 1P/70 SIS RoHS	AA	AB
	PL1006	30027658	CNAS 2P+3P/300 W/BLK C UL1007AWG24RoHS	AB	AF
	PL101	30015053	SOCKET SCART NEW TYPE	AB	AF

	REF No.	PARTS	DESCRIPTION	SN CODE	EX CODE
	PL110	30027659	CNAS 2P/150 W/DC SHL BLUE ROHS	AC	AH
	PL302	30018454	CONN HEADER 2P 2.5MM TOP BLACK	AA	AA
	PL407	30001835	CONN HEADER 3P 2.5MM TOP WHT SD	AA	AB
	PL507	30019101	CABL 1P/350 DIS UL1672AWG22 RoHS	AA	AB
	PL900	30016695	CNAS 5P/450 FLT W/C+CBLH UL2468AWG24RoHS	AB	AE
	PL902	30016694	CNAS 4P/450 FLT W/C+ BLH UL2468AWG24RoHS	AA	AE
⚠	PL903	30031572	SOCKET CRT SAFE NARROWNECK W/GND RoHS	AA	AE
	S102		JUMPER WIRE	AA	AB
	S103	30012985	JUMPER SMD 0603 ROHS	AA	AB
	S104		JUMPER WIRE	AA	AB
	S105	30012985	JUMPER SMD 0603 ROHS	AA	AB
	S106	30012985	JUMPER SMD 0603 ROHS	AA	AB
	S107	30012985	JUMPER SMD 0603 ROHS	AA	AB
	S118	30012985	JUMPER SMD 0603 ROHS	AA	AB
	S143	30012985	JUMPER SMD 0603 ROHS	AA	AB
	S301	30012985	JUMPER WIRE	AA	AB
	S302	30012985	JUMPER WIRE	AA	AB
	S900	35000176	JUMPER WIRE	AA	AB
	SG900	30000428	SPARK GAP 300V ROHS	AB	AG
	SG901	30000428	SPARK GAP 300V ROHS	AB	AG
	SG902	30000428	SPARK GAP 300V ROHS	AB	AG
	SW506	30016022	SWITCH TACT VERTICAL T&R ROHS	AA	AB
	SW507	30016022	SWITCH TACT VERTICAL T&R ROHS	AA	AB
	SW508	30016022	SWITCH TACT VERTICAL T&R ROHS	AA	AB
	SW509	30016022	SWITCH TACT VERTICAL T&R ROHS	AA	AB
	SW510	30016022	SWITCH TACT VERTICAL T&R ROHS	AA	AB
⚠	SW801	30031291	SWITCH SAFE ON/OFF 4A/128A JVC(PAN) RoHS	AC	AH
⚠	TH800	30001268	THERMISTOR SAFE 3P RoHS	AD	AM

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